

# Researcher in Hydrology within Coupled Processes in Fractured Rocks

Uppsala universitet, Institutionen för geovetenskaper

## Researcher in Hydrology with a focus on Coupled Processes in Fractured Rocks

Are you interested in working with multiphysics modelling for geoenergy and geoengineering applications, with the support of competent and friendly colleagues in an international environment? Are you looking for an employer that invests in sustainable employeeship and offers safe, favourable working conditions? We welcome you to apply for a Researcher position at Uppsala University.

**The Department of Earth Sciences** is one of the most complete such academic departments in Europe. Our research focuses on subjects that range from the Earth's core to the atmosphere, on scales from sub-microscopic structures in minerals to the formation of mountains and oceans. We have teaching at undergraduate and graduate levels. Our courses offer a wide range within the geoscience area and several of the department's programs have received the highest rating in evaluations by the Swedish National Agency for Higher Education and the Swedish Higher Education Authority. For more information see [www.geo.uu.se](http://www.geo.uu.se). The successful candidate will join the research program Air, Water and Landscape Sciences (LUVAL) and the research group in Geohydrology (<https://www.geo.uu.se/research/luval/disciplines/Hydrology/ongoing-research/geohydrology/>).

### Duties

This Researcher position has a focus on developing advanced numerical models for simulating coupled multiphysical processes in fractured geological media. The simulation tools will be applied to study a wide range of geoenergy and geoengineering problems, such as nuclear waste disposal in crystalline/argillaceous formations, underground construction in dense urban areas, and hydrogen storage in fractured rocks. The project is for two years. The researcher is also expected to seek additional funding to continue the research or for related projects. The duties for this position mainly consist of:

- performing cutting-edge research in the above mentioned areas,
- presenting results in leading international conferences and journals,
- supporting the supervision of PhD students as well as interacting with industrial partners,
- and undertaking 20% teaching.

### Requirements

To qualify for an employment as a researcher you must have a PhD degree in rock mechanics / geomechanics / hydrogeology / geophysics or a comparable degree in earth sciences / geotechnical engineering / petroleum engineering. The successful candidate should have a solid base in mathematics, mechanics and physics as well as knowledge of computer simulations and scientific programming.

### Additional qualifications

Previous experience in numerical / mathematical modelling are a merit. Pedagogic training and teaching experience as well as collaboration skills are also meriting.

**The application** should include a cover letter of max 2 pages, shortly describing your personal motivation for applying for this Researcher position and how you see your role in contributing to the project, as well as your relevant skills, qualifications and research interests. The application should also include a CV (with a full publication list), 2 representative journal papers, PhD degree certificate, PhD thesis, and other relevant documents, as well as the contact details of 2-3 referees.

### About the employment

The employment is a permanent position. Scope of employment 100 %. Starting date 2024-05-01 or as agreed. Placement: Uppsala.

For further information about the position, please contact: Qinghua Lei ([qinghua.lei@geo.uu.se](mailto:qinghua.lei@geo.uu.se)).

**Please submit your application by 15th March 2024, UFV-PA 2024/549.**

Are you considering moving to Sweden to work at Uppsala University? Find out more about what it's like to work and live in Sweden.

Uppsala University is a broad research university with a strong international position. The ultimate goal is to conduct education and research of the highest quality and relevance to make a difference in society. Our most important asset is all of our 7,600 employees and 53,000 students who, with curiosity and commitment, make Uppsala University one of Sweden's most exciting workplaces.

Read more about our benefits and what it is like to work at Uppsala University

<https://uu.se/om-uu/jobba-hos-oss/>

Please do not send offers of recruitment or advertising services.

Submit your application through Uppsala University's recruitment system.

<b>Type of employment</b>	Permanent position
<b>Contract type</b>	Full time
<b>First day of employment</b>	2024-05-01 eller enligt överenskommelse
<b>Salary</b>	Fast lönesättning
<b>Number of positions</b>	1
<b>Full-time equivalent</b>	100%
<b>City</b>	Uppsala
<b>County</b>	Uppsala län
<b>Country</b>	Sweden
<b>Reference number</b>	UFV-PA 2024/549
<b>Union representative</b>	Seko Universitetsklubben seko@uadm.uu.se ST/TCO tco@fackorg.uu.se Saco-rådet sacco@uadm.uu.se
<b>Published</b>	2024-02-15
<b>Last application date</b>	2024-03-15
<b>Link to ad</b>	<a href="http://uu.varbi.com/what:job/jobID:701240/">http://uu.varbi.com/what:job/jobID:701240/</a>